

1. An intraocular lens assembly for increased depth of focus, comprising:

a frame having haptics extending oppositely and longitudinally, said haptics having lateral edges disposed on an outer periphery of the frame, said frame being configured to rigidly vault posteriorly in an eye of a person,

said frame having end portions to engage in the periphery of the capsular bag of an eye,

F₁ said frame defining an opening disposed through said frame, said opening positioned between inner portions of said haptics,

an optic sized and configured to engage in an edge portion of said frame opening, and interengaging features on the frame and on the optic for attachment of the optic to the frame for limited anterior optic movement relative to the frame,

whereby light refracted by the cornea of the eye travels in an increased distance to the optic to substantially increase depth of focus.

12. An intraocular lens assembly for increased depth of focus, comprising:

a frame of generally rigid material and configured to vault posteriorly in an eye of a person, said frame having haptics extending oppositely and longitudinally, said haptics having lateral edges disposed on the outer periphery of the frame,

F₂ said frame defining a central opening disposed through said frame,

said frame having transverse slots spaced oppositely from said frame opening, and

an optic adapted to be disposed adjacent said frame opening, said optic having mounting portions extending oppositely therefrom for engagement in said frame slots to retain the optic

E2 relative to the frame but allow anterior movement of the optic relative to the frame,

Concl whereby light refracted by the cornea of the eye travels in an increased distance to the optic to substantially increase depth of focus.

27. An intraocular lens assembly for increased depth of focus, comprising:

[relatively]
a pair of rigid spaced-apart posteriorly vaulted frame members adapted for engagement with

E3 the periphery of a capsular bag of the eye, said pair of frame members disposed oppositely and longitudinally about an optic, said frame members having end portions extending oppositely and transversely to engage in the peripheral portion of the capsular bag, said frame members having lateral edges disposed on the outer periphery of the frame members, and

a web secured to and extending between said frame members and having thereon said optic.

Please rewrite dependent Claims 9 through 11 as new respective Claims 39 through 41:

39. An intraocular lens assembly for increased depth of focus, comprising:

E4 a frame having haptics extending oppositely and longitudinally, said haptics having lateral edges disposed on an outer periphery of the frame, said frame being configured to vault posteriorly in an eye of a person,

said frame having end portions to engage in the periphery of the capsular bag of an eye,

said frame defining a generally circular opening disposed through said frame, said opening positioned between inner portions of said haptics,

an optic sized and configured to engage in an edge portion of said frame opening, and interengaging features on the frame and on the optic for attachment of the optic to the frame for limited optic movement relative to the frame, said interengaging features comprising transverse slots in the frame spaced oppositely from said opening, and mounting portions extending oppositely from the optic and having transverse ridges at the end portions thereof for retention in the slots, at least one of said slots having a widened portion with slot end shoulders to retain at least one of said ridges for prevention of optic lateral movement, and a notch extending from at least one of said slots adjacent to said frame opening to facilitate folding of the frame for insertion thereof through a slit in an eye,

whereby light refracted by the cornea of the eye travels an increased distance to the optic to substantially increase depth of focus.

40. An intraocular lens assembly for increased depth of focus, comprising:

a frame having haptics extending oppositely and longitudinally, said haptics having lateral edges disposed on an outer periphery of the frame, said frame being configured to vault posteriorly in an eye of a person,

said frame having end portions to engage in the periphery of the capsular bag of an eye,

said frame defining a generally circular opening disposed through said frame, said opening positioned between inner portions of said haptics,

an optic sized and configured to engage in an edge portion of said frame opening, and interengaging features on the frame and on the optic for attachment of the optic to the frame for limited optic movement relative to the frame, said interengaging features comprising transverse slots in the frame spaced oppositely from said opening, and mounting portions extending oppositely from the optic and having transverse ridges at end portions thereof for retention in the slots, at least one of said slots having a widened portion with slot end shoulders to retain at least one of said ridges for prevention of optic lateral movement, and a notch extending from each of said slots toward said frame opening for facilitating the folding of the frame for insertion thereof through a slit in an eye, whereby light refracted by the cornea of the eye travels an increased distance to the optic to substantially increase depth of focus.

41. An intraocular lens assembly for increased depth of focus, comprising:

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a frame having haptics extending oppositely and longitudinally, said haptics having lateral edges disposed on an outer periphery of the frame, said frame being configured to vault posteriorly in an eye of a person,

said frame having end portions to engage in the periphery of the capsular bag of an eye, said frame defining a generally circular opening disposed through said frame, said opening positioned between inner portions of said haptics,

an optic sized and configured to engage in an edge portion of said frame opening, and interengaging features on the frame and on the optic for attachment of the optic to the frame for limited optic movement relative to the frame, said interengaging features comprising transverse

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slots in the frame spaced oppositely from said opening, and mounting portions extending oppositely from the optic and having transverse ridges at end portions thereof for retention in the slots, at least one of said slots has a widened portion with slot and end shoulders to retain at least one of said ridges for prevention of ^{optic} lateral movement, and a portion of the haptic between each slot and said frame opening having a reduced longitudinal dimension to facilitate folding of the frame longitudinally for insertion of the frame through a slit in an eye,

whereby light refracted by the cornea of the eye travels an increased distance to the optic to substantially increase depth of focus.

Please rewrite dependent Claims 20 – 22, 24 and 30 as respective new Claims 42 through 46:

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42. An intraocular lens assembly for increased depth of focus, comprising:

a frame of generally rigid material and configured to vault posteriorly in an eye of a person,

Comb said frame having haptics extending oppositely and longitudinally, said haptics having lateral edges disposed on the outer periphery of the frame,

said frame defining a central generally circular opening disposed through said frame,

said frame having transverse slots spaced oppositely from said frame opening, and

an optic adapted to be disposed adjacent said frame opening, said optic having mounting portions extending oppositely therefrom for engagement in said frame slots to retain the optic relative to the frame, said optic mounting portions extending oppositely from the optic having transverse ridges at end portions thereof for retention in the slots, and

a notch extending from at least one of said slots toward said frame opening to facilitate folding of the frame for insertion thereof through a slit in an eye,

whereby light refracted by the cornea of the eye travels an increased distance to the optic to substantially increase depth of focus.

43. An intraocular lens assembly for increased depth of focus, comprising:

a frame of generally rigid material and configured to vault posteriorly in an eye of a person, said frame having haptics extending oppositely and longitudinally, said haptics having lateral edges disposed on the outer periphery of the frame,

said frame defining a central generally circular opening disposed through said frame,

said frame having transverse slots spaced oppositely from said frame opening, and

an optic adapted to be disposed adjacent said frame opening, said optic having mounting portions extending oppositely therefrom for engagement in said frame slots to retain the optic relative to the frame, said optic mounting portions extending oppositely from the optic having transverse ridges at end portions thereof for retention in the slots, and a notch extending from each of said slots toward said frame opening for facilitating the folding of the frame for insertion thereof through a slit in an eye,

whereby light refracted by the cornea of the eye travels an increased distance to the optic to substantially increase depth of focus.

44. An intraocular lens assembly for increased depth of focus, comprising:

a frame of generally rigid material and configured to vault posteriorly in an eye of a person, said frame having haptics extending oppositely and longitudinally, said haptics having lateral edges disposed on the outer periphery of the frame,

said frame defining a central generally circular opening disposed through said frame,

said frame having transverse slots spaced oppositely from said frame opening, and

an optic adapted to be disposed adjacent said frame opening, said optic having mounting portions extending oppositely therefrom for engagement in said frame slots to retain the optic relative to the frame, said optic mounting portions extending oppositely from the optic having transverse ridges at end portions thereof for retention in the slots, and a portion of the haptic between each of said slots and said frame opening having a reduced longitudinal dimension to facilitate folding of the frame longitudinally for insertion of the frame through a slit in an eye,

whereby light refracted by the cornea of the eye travels an increased distance to the optic to

substantially increase depth of focus.

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45. An intraocular lens assembly for increased depth of focus, comprising:

a frame of generally rigid material and configured to vault posteriority in an eye of a person, said frame having haptics extending oppositely and longitudinally, said haptics having lateral edges disposed on the outer periphery of the frame,

said frame defining a central generally circular opening disposed through said frame,

said frame having transverse slots spaced oppositely from said frame opening, and

an optic adapted to be disposed adjacent said frame opening, said optic having mounting portions extending oppositely therefrom for engagement in said frame slots to retain the optic relative to the frame wherein an enlarged opening is defined in each of said haptics, and extends into proximity with said slots to define a substantially narrow hinge portion to substantially narrow haptic portions to facilitate bending of the lens along its longitudinal axis,

whereby light refracted by the cornea of the eye travels an increased distance to the optic to substantially increase depth of focus.

46. An intraocular lens assembly for increased depth of focus, comprising:

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a pair of relatively rigid spaced-apart frame members adapted for engagement with the periphery of a capsular bag of the eye, said pair of frame members disposed oppositely and longitudinally about said optic, said frame members having end portions extending oppositely and transversely to engage in the peripheral portions of the capsular bag, said frame members having lateral edges disposed on the outer periphery of the frame members, and

a web secured to and extending between said frame members and having thereon an optic, the web having portions extending oppositely from the optic, the web portions being bifurcated and having lugs and loops thereon, and said frame members having slits defined therein to receive the lugs of the web portions, and the lugs and loops being generally disposed equidistant from a center of the optic.

Please rewrite Claim 36 (dependent on Claim 1 and Claim 12) in independent form as new
Claims 47-48:

47. An intraocular lens assembly for increased depth of focus, comprising:

a frame having haptics extending oppositely and longitudinally, said haptics having lateral edges disposed on an outer periphery of the frame, said frame being configured to vault posteriorly in an eye of a person,

said frame defining a generally circular opening disposed through said frame, said opening positioned between inner portions of said haptics,

an optic sized and configured to engage in an edge portion of said frame opening, and interengaging features on the frame and on the optic for attachment of the optic to the frame for limited optic movement relative to the frame, and wherein the frame has folding portions formed of a relatively soft material to provide for folding of the frame for insertion into an eye,

whereby light refracted by the cornea of the eye travels an increased distance to the optic to substantially increase depth of focus.

48. An intraocular lens assembly for increased depth of focus, comprising:

a frame of generally rigid material and configured to vault posteriorly in an eye of a person, said frame having haptics extending oppositely and longitudinally, said haptics having lateral edges disposed on the outer periphery of the frame,

said frame defining a central generally circular opening disposed through said frame,

said frame having transverse slots spaced oppositely from said frame opening, and ✓
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an optic adapted to be disposed adjacent said frame opening, said optic having mounting portions extending oppositely therefrom for engagement in said frame slots to retain the optic relative to the frame, and wherein the frame has folding portions formed of a relatively soft material to provide for folding of the frame for insertion into an eye,

whereby light refracted by the cornea of the eye travels an increased distance to the optic to substantially increase depth of focus.

Please cancel Claim 38 without prejudice.

Please add the following new Claims 49 – 51:

49. An intraocular lens assembly according to Claim 27, wherein said lens assembly is foldable longitudinally through the optic but rigid in each of the two haptics.

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50. An intraocular lens assembly for increased depth of focus, comprising:
a posteriorly vaulted frame adapted for engagement with the periphery of a capsular bag of an eye, said frame having end portions extending oppositely to engage in a peripheral portion of the capsular bag, and

an optic comprising a flexible optic and attachments for allowing movement of the optic relative to the frame, and the lens assembly being constructed to be foldable longitudinally.

51. A lens assembly as in Claim 50 wherein said frame has haptics extending oppositely and

E4 longitudinally, the frame having an opening therethrough between inner portions of the haptics, and

Cancel the optic being configured to engage in an edge portion of the frame opening.
